

REMARKS

This is a Response to the Office Action mailed May 17, 2007, in which a three (3) month Shortened Statutory Period for Response has been set, which expired August 17, 2007. A petition a two (2) month extension and the requisite fee are included with this amendment.

Twenty (20) claims, including three (3) independent claims, were paid for in the application. Claims 1, 3-5, 9-11, and 30-41 are pending, and claims 1, 9-11, 30-32, and 35-39 are currently amended. Claims 40 and 41 are added. No new matter has been added to the application. No fee for additional claims is due by way of this Amendment. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Rejections Under 35 U.S.C. § 112

Claims 1, 4, 30, 35, and 36 stand rejected under 35 U.S.C. § 112, second paragraph. It is alleged that the claims are indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention.

Specifically, claim 1 was objected to because it was alleged that “it was not clear if the resin material is a part of the adhering intent or the composite material or the medium.” The preamble of claim 1 has been amended to delete the phrase “wherein a resin material is used to adhere the medium to the composite material.” The word “resin” in no longer recited in claim 1. Therefore, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claims 4, 30, and 36 stand rejected because it was alleged that “it appears that something is missing after ‘one of translucent or transparent’.”

The present Office Action sustains the previous rejection and states that if “the examiner has to guess which layer is transparent, [then] it is not clear.” In evaluating a claim under 35. U.S.C. 112, second paragraph, “[t]here are two separate requirements set forth in this paragraph:

- (A) the claims must set forth the subject matter that applicants regard as their invention; and

- (B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.

(MPEP § 2171.)

To determine claim clarity and precision MPEP § 2173.02 states the following:

The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. When the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement.

The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, ... *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004) ("The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles...Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.").

....

If the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C. 112, second paragraph, would be appropriate. See *Morton Int'l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993). However, if the language used by applicant satisfies the statutory requirements of 35 U.S.C. 112, second paragraph, but the examiner merely wants the applicant to improve the clarity or precision of the language used, the claim must not be rejected under 35 U.S.C. 112, second paragraph, rather, the examiner should suggest improved language to the applicant.

(Emphasis added.)

Applicants respectfully submit that the claims do particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant. Applicants have previously argued that it is the combination of the mesh carrier covered/coated with the resin material that is transparent or translucent. Applicants respectfully submit that the scope of the claims is precise and defined. The combination of a mesh carrier and a resin material, where the resin material coats/covers the mesh carrier, is not within the scope of the claims if the combination is not transparent or translucent. For such a combination of a mesh carrier and resin material, it does not matter whether the mesh carrier by itself is not transparent or whether the resin material by itself is not transparent because the combination of the mesh carrier and the resin material is not transparent or translucent. Similarly, Applicants respectfully submit that it does not matter whether Applicants' claimed mesh carrier is individually translucent or transparent or whether Applicants' claimed resin material is individually transparent or translucent because Applicants have claimed that mesh carrier cover/coated with the resin material is transparent or translucent. The interpretation of the claimed limitations does not require, necessitate, or involve, determining whether the mesh or the resin material are individually transparent or translucent. Therefore, Applicants respectfully request that the rejections of claims 4, 30, and 36 be withdrawn.

#### Rejections Under 35 U.S.C. § 103

Claims 1, 3-5, 9-11, and 30-39 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over various combinations of the following references: U.S. Patent 6,715,868 to Schmidt et al. (hereinafter "Schmidt"), U.S. Publication No. 2005/0100689 to He et al.

(hereinafter “He”), U.S. Patent 5,854,148 to Asada et al. (hereinafter “Asada”), and U.S. Patent 6,689,517 to Kaminsky et al. (hereinafter “Kaminsky”). In addition, U.S. Patent 3,825,104 to Wotowitz (hereinafter “Wotowitz”) was cited in the Office Action but apparently not applied.

In particular, the Office Action rejects claims 1, 4, 5, 9-11, 30-32, 34, and 36-39 as being unpatentable over Schmidt in view of He. The Office Action relies on He for teaching a label with overlapping ink, teaching adhering the label to a garment via heat and by resin adhesive, and teaching bar codes on the label. The Office Action relies upon Schmidt for all of the remaining limitations included in claims 1, 4, 5, 9-11, 30-32, 34, and 36-39.

### 35 U.S.C. § 103: Principles of Law

Before discussing the claims in detail, Applicants first discuss principles of law regarding obviousness type rejections under 35 U.S.C. § 103.

It is well-established law that, for a proper rejection of a claim under 35 U.S.C. § 103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981). As clearly articulated in M.P.E.P. § 2143.03, “[to] establish *prima facie* obviousness of a claimed invention, **all the claim limitations must be taught or suggested** by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). **“All words in a claim must be considered in judging the patentability** of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (C.C.P.A. 1970). (Emphasis added.)

The Supreme Court of the United States and the Federal Circuit Court of Appeals have provided further guidance for resolving the question of obviousness. “An obviousness determination is **not the result of a rigid formula** disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not. See *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1739, 167 L.Ed.2d 705 (2007).” *Leapfrog Ent., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 82 USPQ2d 1687 (Fed. Cir. 2007) (emphasis added).

In *KSR, supra*, the Supreme Court articulated guidelines for determining obviousness. One of the guidelines is that there is some benefit from the proposed modification. (“A person having ordinary skill in the art could have combined Asano with a ... sensor ..., and **would have seen the benefit** of doing so.” *Id.* at 1743 (emphasis added). “The proper question to have asked was whether ... [a person] of ordinary skill [in the art] ... **would have seen a benefit to upgrading** Asano with a sensor.” *Id.* at 1743 (emphasis added).)

“Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, **it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does.** Inventions usually rely upon building blocks long since uncovered, and claimed discoveries almost necessarily will be combinations of what, in some sense, is already known.” *Id.* at 1731 (emphasis added).

In *KSR, supra*, the Supreme Court noted that it will be necessary for a court “to determine whether there was **an apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be explicit.” *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 1746 (2007). “[R]ejections on obviousness grounds **cannot be sustained by mere conclusory statements**; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* at 1746, quoting *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) (emphasis added).

In decisions decided after *KSR, supra*, the Board of Patent Appeals and Interferences has failed to sustain obviousness type rejections when the examiner has failed to make a proper *prima facie* case of obviousness. See *Ex parte Katoh* et al., Appeal 2007-1460 (obviousness rejection not sustained because there was “no evidence or suggestion” in the reference for the alleged configuration); and *Ex parte Crawford* et al., Appeal 2006-2429 (obviousness rejection not sustained because there was no suggestion to combine the references in the manner suggest by the examiner except for using the Appellants’ invention as a template through hindsight reconstruction of Appellants’ claims).

All Claim Limitations Must Taught or Suggested

To establish *prima facie* obviousness of a claimed invention, **all the claim limitations must be taught or suggested** by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974) (emphasis added.). "**All words in a claim must be considered** in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970) (emphasis added). (See, MPEP 2143.03.)

1. Response to Rejection of Claim 1

Amended claim 1 recites, *inter alia*, "a layer of a light-colored thermal transfer printer ink; a layer of a dark-colored thermal transfer printer ink, wherein the layer of the light-colored thermal transfer printer ink and the layer of the dark-colored thermal transfer printer ink overlap and *form a two-layer thermal transfer printer ink indicia*; and a mesh carrier having a first surface and a second surface opposed to the first surface and *having the two-layer thermal transfer printer ink indicia* disposed on the first surface." (Emphasis added.)

Schmidt discloses formulations of "thermal ink jet printer ink" and a method of applying the thermal ink jet printer ink. (Abstract.) Whereas, Applicants claim "two-layer thermal transfer printer ink indicia." Applicants' specification distinguishes between thermal transfer printer ink and ink jet printer ink. In particular, Applicants disclose that two-layer indicia may be printed using a single thermal transfer ribbon having layers of dark-colored thermal transfer printer ink and light-colored thermal transfer printer ink, and those skilled in the art recognize that the two-layer indicia would be printed onto the mesh in one pass. Whereas, Applicants also disclose "a fifth embodiment uses ink jet technology to print ... onto the porous media using two passes," where one pass prints the light color ink and the other pass prints the dark colored ink. Those skilled in the art recognize that "thermal ink jet printer ink" is substantially different from "thermal transfer printer ink." Thus, the cited art of record fails to disclose, teach, or suggest, "two layer thermal transfer printer ink indicia," and consequently Applicants respectfully request that the rejection of claim 1 be withdrawn.

Furthermore, Applicants respectfully submit that amended claim 1 is NOT a product-by-process claim and claim 1 does not claim indicia printed by a process. Instead claim

1 recites, *inter alia*, “a two-layer thermal transfer printer ink indicia” which is different from thermal ink jet printer ink indicia.

2. Response to Rejections of Independent Claims 30 and 36 - Composite Material

Claims 30 and 36 each recite, *inter alia*, a composite material including at least one reinforcing material and a matrix. Under MPEP § 2111, the claims must be examined under the broadest reasonable interpretation.

As a matter of law, the “PTO applies to verbiage of the proposed claims **the broadest reasonable meaning** of the words in their ordinary usage **as they would be understood by one of ordinary skill in the art, taking into account** whatever enlightenment by way of definitions or otherwise that may be afforded by **the written description contained in applicant’s specification.**” *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (emphasis added). (See MPEP § 2111.) “In the absence of an express intent to impart a novel meaning to the claim terms, **the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art.**” *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003) (emphasis added). (See MPEP § 2111.01 III). “It is the **use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the “ordinary” and the “customary”** meaning of the terms in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003).” (*Quoting* MPEP § 2111.01 III, emphasis added).

Applicants respectfully submit that one of ordinary skill in the art would recognize that He’s garments are not “a composite material including at least one reinforcing material and a matrix.” Among other locations of Applicants’ pending specification, Applicants discuss a composite material starting at page 3, line 24, through page 4, line 17. In particular, Applicants disclose:

“Composite materials 10 are typically formed from at least one reinforcing material and a matrix. The reinforcing material may be, for example, fiber, particulate, or a laminate. Matrix materials may be, for example, ceramic or polymers. Through the selection of variables such as reinforcing material(s),

matrix material, composition and reinforcement arrangement composites with a wide range of properties have been developed. Common composite materials are glass-polymer, graphite-polymer, Kevlar-epoxy, Kevlar-polyester and carbon-carbon composites. Polymer and ceramic matrix composites are widely used, for example, in automotive, marine, aircraft, and aerospace components. They are also used in sporting goods, such as tennis rackets, skis, and fishing rods.

Applicants submit that Applicants' usage of "composite material" is readily understood by one of ordinary skill in the art and is consistent with customary meaning. For example, Wikipedia, an online encyclopedia, describes a composite material as such:

Composite materials (or composites for short) are engineering materials made from two or more constituent materials that remain separate and distinct on a macroscopic level while forming a single component. There are two categories of constituent materials: matrix and reinforcement. At least one portion of each type is required. The matrix material surrounds and supports the reinforcement materials by maintaining their relative positions. The reinforcements impart their special mechanical and physical properties to enhance the matrix properties. A synergism produces material properties unavailable from the individual constituent materials. Due to the wide variety of matrix and reinforcement materials available, the design potentials are incredible.

(See [http://en.wikipedia.org/wiki/Composite\\_Material](http://en.wikipedia.org/wiki/Composite_Material).)

For at least the reasons provided above, Applicants respectfully submit that the cited references apparently fail individually, and collectively, to disclose, teach, or suggest, the limitations of claims 30 and 36. Therefore, Applicants respectfully request that the rejections of claims 30 and 36 be withdrawn.

3. Response to Rejections of Claims 32 and 38

Claim 32, which depends from claim 30, recites, *inter alia*, "wherein the first surface of the mesh carrier is directed toward the surface of the composite material such that the layer of dark-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia is directed toward the surface of the composite material, and wherein the surface of the composite material is dark-colored, and **wherein the layer of light-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia is visible through the mesh carrier.**" (Emphasis added.) Incorporating the limitations of claim 30 into claim 32 requires the elements to be arranged in the following order: the layer of dark-colored thermal transfer printer



ink of the two-layer thermal transfer printer ink indicia is proximal to the surface of the composite material, followed by the light-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia, and the mesh carrier is distal from the surface of the composite material. Claim 32 also requires that the layer of the light-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia is visible through the mesh carrier. Applicants respectfully submit that Schmidt and He fail, individually and collectively, to disclose, teach or suggest the limitations of claim 32. Therefore, Applicants respectfully request that the rejection of claim 32 be withdrawn.

Claim 38, which depends from claim 36, recites, *inter alia*, “wherein the first surface of the mesh carrier is directed toward the surface of the composite material such that the layer of light-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia is directed toward the surface of the composite material, and wherein **the surface of the composite material is light-colored**, and wherein **the layer of dark-colored thermal transfer printer ink** of the two-layer thermal transfer printer ink indicia **is visible through the mesh carrier**.” (Emphasis added.) Incorporating the limitations of claim 36 into claim 38 requires the elements to be arranged in the following order: the layer of light-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia is proximal to the surface of the composite material, followed by the layer of dark-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia, and the mesh carrier is distal from the surface of the composite material. Claim 38 also requires that the layer of the dark-colored thermal transfer printer ink of the two-layer thermal transfer printer ink indicia is visible through the mesh carrier. Applicants respectfully submit that Schmidt and He fail, individually and collectively, to disclose, teach or suggest the limitations of claim 38. Therefore, Applicants respectfully request that the rejection of claim 38 be withdrawn.

#### Conclusion

In light of the above amendments and remarks, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that all pending claims 1, 3-5, 9-11, and 30-41 are allowable. Applicants, therefore,

respectfully request that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Dr. Ringer by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, he is further encouraged to contact Dr. Ringer by telephone to expediently correct such informalities.

Respectfully submitted,  
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